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Please replace the paragraph beginning at page 51, line 28 to page 52, line 2, with the following rewritten paragraph:

--Treatment of type 1-fimbriated *E. coli* with asparaginase resulted in more consistent results than those obtained after treatment with polyphenol oxidase. Concentrations of asparaginase < 2 units/ml resulted in limited decreases in adhesion (13%); however, concentrations > 2 units/ml greatly decreased adhesion (85-90%) to UECs (Fig. 6).--

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09750357-061901  
Please replace the paragraph beginning at page 52, line 3, with the following rewritten paragraph:

--Subjecting the bacteria to sequential enzyme treatments, either polyphenol oxidase followed by asparaginase or vice versa, did not have as great an effect on reducing bacterial adhesion to UECs as the enzymes did singly. polyphenol oxidase, 141 units/ml, followed by asparaginase, 10 units/ml, resulted in only a 25% decrease in adhesion, while asparaginase, 10 units/ml, followed by polyphenol oxidase, 141 units/ml, gave a 45% decrease in adhesion. Even though these treatments did produce a reduction in adhesion, polyphenol oxidase and asparaginase singly provided much better prevention of adhesion, 60% and 90% respectively (Fig. 7).--

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Please replace the paragraph beginning at page 52, line 11, with the following rewritten paragraph:

--To probe the enzymatic site of action, type 1-fimbriated *E. coli* were incubated with four-methylumbelliferyl  $\alpha$ -D-mannopyranoside (MUMB, 50 mM) so as to protect the binding site followed by treatment with either polyphenol oxidase (141 units/ml) or asparaginase (10 units/ml). These treatments resulted in a 25% and 50% reduction in adhesion, respectively. Bacteria were incubated with the mannopyranoside in varied concentrations (10 mM, 50 mM, or 200 mM) then treated with polyphenol oxidase at a concentration of 141 units/ml to observe for a dose dependent effect. The percent of decrease of adhesion remained virtually unchanged (~30%) for each concentration of the mannopyranoside tested; therefore, 50 mM was used for further assays. The bacteria were incubated with the mannopyranoside (50 mM) followed by polyphenol oxidase (141 units/ml) or asparaginase (10 units/ml), resulting in a 25% decrease in adhesion and 40% increase in adhesion to UECs respectively (Fig. 8).--

Please replace the paragraph beginning at page 52, line 25, with the following rewritten paragraph:

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--Treatment of bacteria with polyphenol oxidase at a concentration of 71 units/ml consistently resulted in a 40% reduction in adhesion. Treatment with polyphenol oxidase at concentrations of 141 units/ml and 282 units/ml averaged decreases in adhesion of 30% and 55%, respectively (Fig. 9). Treatment of P-fimbriated *E. coli* with increasing concentrations of asparaginase (2.5, 5, and 25 units/ml) resulted in 45, 55, and 85% decreases in adhesion respectively (Fig. 10).--

Please replace the paragraph beginning at page 53, line 1, with the following rewritten paragraph:

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09750857-061904  
--Subjecting P-fimbriated *E. coli* to sequential enzyme treatments, either polyphenol oxidase followed by asparaginase or vice versa, had varying effects on reducing bacterial adhesion to UECs. polyphenol oxidase, 141 units/ml, followed by asparaginase, 10 units/ml, resulted in a 55% decrease in adhesion, while asparaginase, 10 units/ml, followed by polyphenol oxidase, 141 units/ml, resulted in no decrease from control adhesion (Fig. 11).--

Please replace the paragraph beginning at page 53, line 6, with the following rewritten paragraph:

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--To probe the enzymatic site of action, P-fimbriated *E. coli* were incubated with globoside to protect the binding site followed by treatment with either polyphenol oxidase (282 units/ml) or asparaginase (5 units/ml). These treatments resulted in adhesion to UECs that was nearly the same as that of untreated bacteria (Fig. 12).--

Please replace the paragraph beginning at page 53, line 27, with the following rewritten paragraph:

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--Figure 13 depicts the relative adhesion of *S. pyogenes* to buccal epithelial cells as measured using flow cytometry.--